DOCUMENT RESUME

ED 103 170 RC 008 396

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TITLE Cultural and Biological Adaptations to Deprivation: The Northern Ojibwa Case.
PUB DATE 24 Nov 74
NOTE 36p.; Paper prepared for the symposium Extinction and Survival in Human Populations, American Anthropological Association (Mexico City, Mexico, November 1974)

EDRS PRICE MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS *Adjustment (to Environment); *American History; *American Indians; Change Strategies; Cultural Background; Cultural Environment; *Disadvantaged Environment; Economic Change; Ethnology; *Life Style; Social Environment; Social Structure; Sociocultural Patterns
IDENTIFIERS *Ojibwas

ABSTRACT

After the fur trade reached the Ojibwa during the early 17th Century, tribe structure and function rapidly changed. The intensity of social life increased as the Ojibwa and neighboring tribes gathered to exchange fur pelts for European items. Trade became so important that intertribal hostilities arose and an almost unrestrictive slaughter of animals occurred. Ceremonials included great quantities of surplus goods which were exchanged or destroyed at multitribal gatherings. As beaver declined, they found it increasingly difficult to procure sufficient quantities to obtain trade supplies. In order to survive, the Ojibwa were forced to adapt to a hare and fish subsistence. Neither these resources nor the trapping requirements allowed for the maintenance of large hunting groups characteristic of former years. The altered environment and external conditions of trade tended to mold the nature of social groups while setting limits on their size and the extent of territory which they could "exploit." The functional basis of unilineal society was destroyed. The Ojibwa had to readjust their adaptive strategies to conform with survival requirements. In most cases, they chose survival under deprived conditions over extinction. Faced with the need to adapt to a situation where only survival was the reward, they showed flexibility in altering subsistence style, organizational networks, and cultural motifs so as to exist and expand. (Author/NQ)

CULTURAL AND BIOLOGICAL ADAPTATIONS TO DEPRIVATION: THE NORTHERN OJIBWA CASE

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Paper prepared for the symposium EXTINCTION AND SURVIVAL IN HUMAN POPULATIONS co-chaired by Charles D. Laughlin, Jr. and Ivan A. Brady. American Anthropological Association Meetings, Mexico City, November 19-24, 1974.

> Adaptability is probably the most distinctive characteristic of life. In maintaining the independence and individuality of natural units, none of the great forces of inanimate matter are as successful as that alertness and adaptability to change which we designate as life--and the loss of which is death (Selye 1973:699).

The purpose of this paper is to examine the effects of environmental deprivation and stress upon social and economic patterns among the Northern Ojibwa. In order to more fully comprehend the nature of the deprivation situation, I briefly outline cultural arrangements as they appear to have existed immediately following European contacts, and the subsequent changes in these which ultimately culminated in more stressful conditions. Following a dsicussion of the nature of deprivation and adaptation, I relate the specific conditions to general theoretical issues of survival, deprivation and adaptation. Most of the data in this paper was obtained from the historical records of the Hudson's Bay Company which document changes and responses to deprivation.

THE EARLY CONTACT OJIBWA AND THE FUR TRADE

When the first French explorers and missionaries met the Ojibwa during the early seventeenth century, they found them residing in a series of semi-sedentary patrilineal totem-clan villages of 100 or so persons each, located near the north

shore of Lake Huron and at the east end of Lake Superior (Hickerson 1962). Although politically and economically autonomous, these clan villages were linked by bilateral cross-cousin marriage and the Feast of the Dead ceremony held by each village about every seven years (McPherron 1967:292; Hickerson 1960). In precontact times, the Feast appears to have been an instrument to perpetuate alliances and redistribute surplus food and other goods. According to McPherron: "People placing their relatives in a common grave became allied in the same way that parents-in-law became allied upon the marriage of their children" (1967:289). The economic support of these clan villages was the fisheries which permitted settled life. Fish and game of other sorts including deer, moose, caribou and beaver, along with a variety of plant foods provided a rich array of resources. The Ojibwa of this era were in no danger of starvation since food surpluses offset potential periods of shortage. Security was further ensured through exchanges between clans at marriages and ceremonials.

Following contact and the introduction of the French fur trade, the intensity of social life increased as the Ojibwa and neighboring tribes gathered at Sault Ste. Marie to exchange fur pelts for European items. These were first obtained from other Indians (Ottawa and Nipissing) who acted as middlemen, and slightly later directly from French coureurs de bois.

After 1650, the Feast of the Dead ceremony grew in scope to include great quantities of surplus goods which were exchanged or destroyed at multi-tribal gatherings. Feasting, dancing, and gift-giving came to overshadow the more solemn purpose of the Feast, while the clan chiefs (captains) hosting a feast manipulated social relations to accumulate surplus goods to be consumed and exchanged. According to McPherron, the florescent Feast functioned "to reduce the quantity of goods through simple destruction and through redistribution of the proceeds of the fur trade, serving as a mechanism to forestall the social disruption that was occurring as a result of the enormous change in economic relations" (1967:293).

In order to extend their middleman role and also to avoid the wrath of the Iroquois, a number of Ojibwa groups began to shift westward along both the north and south shores of Lake Superior during the late seventeenth century. It is the Ojibwa who began expanding in a northwesterly direction that this study is concerned. Until the 1670's when the newly founded Hudson's Bay Company began establishing trading centers along coastal Hudson and James Bay, the Ojibwa acted as middlemen to the Cree and Assiniboin to the northwest. Although after this date they were forced to trap furs themselves to obtain European wares, they continued to return to Sault Ste. Marie and later Michilimackinac to fish and engage in

inter-tribal trade fairs. By the 1730's, however, some Ojibwa began residing permanently in the Boreal forests northwest of Lake Superior as the Cree and Assiniboin retreated westward in the van of the expanding fur trade. The abundance of resources in the northern interior, the advantage of being closer to the source of French and English trade rivalry, along with the depletion of game and furs further east had lured Ojibwa trader-settlers into northern Ontario by the early eighteenth century. The number of Ojibwa groups (and perhaps other groups such as Ottawa) who came to occupy the souther two thirds of northern Ontario and eastern Manitoba were few in number but large in size often numbering eighty people. It would seem that either whole clans or lineages of parent clans formed basic social groups. Over each band, or "tribe" as they were called by the traders, was a leader or "captain" who dealt directly with the traders on behalf of his "young men". Survival and trapping by large bands under competitive conditions required considerable mobility. Hence, subsistence patterns changed to focus on the numerous large game animals, moose and caribou, while fishing declined in importance and was left to women and children. While inter clan sharing of foods and even trade goods continued at ceremonials and feasts, the fur animals trapped now appear to have been coveted as band (lineage) property.

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After a brief interlude during the 1760's when the Hudson's Bay Company controlled the trade stemming from French problems in Quebec, a new wave of traders from Montreal entered the Northern Ojibwa area and were soon capturing the bulk of the trade. No longer did the Ojibwa have to make long treks to distant trading posts for their supplies. In order to effectively compete with the Montreal merchants, the Hudson's Bay Company was forced to erect numerous inland posts during the late decades of the century in the area occupied by the emergent Northern Ojibwa. At this time, rivalry between the Hudson's Bay Company and the newly formed (1783) Northwest Company grew intense as the two concerns vied for the pelts obtained by Indians. Indeed, great quantities of European goods were distributed to Indians at a low cost to gain their allegiance, but even then some groups might fail to pay their debts if bargains looked better at a competing post. Traders of both companies were often forced to give Indians what they requested, lest they lose the trade of whole bands. Nevertheless, despite the ease with which Indians could obtain goods, it is evident that the Ojibwa were growing increasingly dependent upon European substitutes.

With the settling of the interior by traders during the last decades of the century, mass Indian migrations ceased as Indians adapted to more localized trade conditions. The large

bands or clans of earlier times segmented into smaller more viable groups of from twenty to thirty five persons, an apparent adaptation to the new trade and ecological conditions. This process of segmentation was also related to an evident population growth during the last half of the eighteenth century despite occasional epidemics and intergroup conflicts deriving from resource and status competition. The focus on furs and venison by a growing population which consumed the flesh and also supplied traders with considerable quantities could not continue for long. The valuable beaver supply along with the large animals were slaughtered in such numbers that they began to grow scarce by 1810. Dwindling fur returns directly affected the trading companies. Adapted to expanding trade conditions, the Northwest Company, when faced with diminishing returns and hence economic losses, was forced to amalgamate with the Hudson's Bay Company by 1821.

Changes in trade policies and subsistence activitiesbrought about by the unfettered exploitation of food and fur resources during the era of trade company rivalry also altered the adaptive strategies of the Northern Ojibwa.

DEPRIVATION AND SURVIVAL: CHANGING ADAPTIVE STRATEGIES

The termination of competition between the Northwest Company and Hudson's Bay Company in 1821 placed the latter company in a more favorable position in regard to tightening

up its trade policies and entrenching itself in the life of the Indians. Although the Northern Ojibwa had been partially dependent upon European materials prior to 1821, they had been able to take advantage of the trade rivalry and had comparatively little difficulty obtaining their trade supplies. After this date, the Hudson's Bay Company had greater latitude to experiment and manipulate relations with the Indians. The effects of such a monopoly were evident in such remarks as Charles McKenzie's comment regarding the conditions of trade with the Lac Seul Indian, Grand Coquin, in 1822:

> I was well aware of his old Shams which have lost their wonted efficacy...nothing but a good hunt would answer now--...(HBC Arch B107/a/2).

Among the policies implemented after 1821 were: 1) The withdrawal of a number of posts which no longer merited their expenditure, and which had been operated at a loss during the period of trade rivalry; 2) A general increase in the price of trade goods; 3) Restrictions and conservation policies on beaver and muskrats; 4) A concerted effort to establish family hunting territories; 5) The termination of deferential treatment of band chiefs; and 6) The implementation of what was termed the "ready barter" system of trade. The purpose of these changes was to improve the trade (from the perspective of the Company), and to make the Indians more dependent on the

trading post. Both aims were easily achieved.

The withdrawal of all but a handful of posts during the 1820's meant that many debt records were transferred and consolidated. This reduced costs and lessened the chance that Indians would rove from post to post. Since the 1810's, the debts of individual trappers had been kept and it was evident from the records that many large unpaid balances remained, the legacy of prior trade competition. Although Indians could chose where they wished to trade, once they had made their choice, their furs were not accepted elsewhere, or their debts were transferred. By such tactics, accurate records of individual balances could be maintained. On the basis of these data, new debts could be withheld or pressure could be applied to "lazy" trappers. Likewise, the increase in the value of trade goods was an attempt to recoup losses.

The restrictions on taking beaver and muskrats were to allow them to increase after their virtual annihilation during previous decades. Also, summer pelts which were formerly taken were of no value and hence were no longer accepted. In order fro such conservation measures to work, it was necessary for Indians to recognize some sort of territorial rights over resources. Otherwise there was no way of preventing trappers from moving about and taking fur bearers where ever they found them. That conservation policies and family hunting territories went hand in hand is indicated by Governor George

Simpson:

> On the subject of nursing the country....We are endeavoring to confine the natives throughout the country now by families to seperate and distinct hunting grounds this system seems to take among them by degrees, and in a few years I hope it will become general, but it is a very difficult matter to change the habits of Indians, altho they may see the ultimate benefit thereof to themselves and families (HBC Arch D4/92).

There are several reasons why family territories did not develop immediately. For one thing, so long as some Indians persisted in taking furs where ever they could find them (to others this meant trespassing), it was difficult to enforce conservation practices. For another, it was exceedingly difficult to convince starving Indians not to kill beaver. Finally, Indians who had formerly practiced communal hunting were evidently reluctant to partition band territories (Bishop 1970).

The deferential treatment of band leaders (captains) by providing them with a special coat, medals and a keg of rum was discontinued because it was considered detrimental to the trade. Instead, Indians regardless of their status should be recognized according to their abilities as trappers.

Finally, the "ready barter" system (which was only periodically put into effect after 1824) required that Indians

trade their furs directly for their trade needs, rather than obtain them in advance in early autumn as had been the custom. Although materials could be obtained more cheaply on the barter system, it meant that Indians had to begin the fall trapping season without the necessary supplies they would normally obtain on the debt system. From the Company's point of view, it eliminated the risk element of the debt system, but placed severe hardships on Indians, especially when food and furs were scarce. Due to difficulties experienced by Indians, the Company was forced to abandon the policy a number of times and later modified it to allow Indians a few items in debt which were deemed essential. Charles McKenzie, an outspoken critic of these policies commented on such compromises in 1852:

> 'Tis certain if we wish the Indians to work, that we must supply their necessaries--now in the olden times when the country was rich "Necessaries" were understood to go no farther than putting <u>Tools</u> into their hands. But now comes the word Necessities which has a Greater latitude--I should like to ask you Gentlemen--when you tell us to give the Indians no more than their <u>Real necessaries</u> I should like to know what you mean by real necessaries--That after putting Tools into their hands does not Clothing come under the head of necessaries--or is clothing as necessary to a naked Indian as tools? Is not a

> Gun absolutely necessary for an Indian--or what is an Indian without a gun--he can kill Squirrels only--with his Bow & Arrows. One thing clear the Lac Seul Indians did not get their Real Necessities this season.... You'll say d--n them let them cover themselves with Rabbit Skins--Aye let them--as they must--and God help them should Rabbits fail them--both for covering and food and I often Shudder at the thought... and that would be ruinous to you also--being as you are Gentlemen Responsible for their lives (HBC Arch B107/z/2).

All the evidence indicates that after 1821, the Northern Ojibwa could not have survived without resorting to the trading post. This dependency was related to environmental shifts, alterations in trade policies implemented by the Company, and to the replacement of native wares by European substitues. McKenzie, manager of the Lac Seul post, summed up this relationship in 1851:

> The Indians also must be provided with their most necessaries... the natives stand in the same yearly necessity, having nothing within themselves to cover their nakedness--save a few miserable Rabbit Skins when kind providence sends that most necessary Supply--both for their Sustenance and Covering--yet so very simple a thing as a Rabbit Snare--must come out of the Trading Shop--They not even wherewithall to Sew their Shoes--without recourse to the Shop (HBC Arch B107/a/30).

The Northern Ojibwa had become utterly dependent upon such items as guns, ammunition, hatchets, knives, kettles, twine, nets, leather, and European cloth. Indeed, traders endeavored to foster this dependent relationship since it gave them more power to implement new policies. Dependent Indians were subject to the sanctions of the trading company as well as sanctions within their own system. Such a relationship has been termed "directed culture change" by Spicer (1961:520-21).

As indicated, changes in subsistence patterns and trading post dependency relationships were intimately connected. As the fur animals, particularly beaver, declined through overhunting, the Ojibwa found it increasingly difficult to meet their trade needs. This was further enhanced by a parallel decline in cervines, the main subsistence source for Indians. Thus, more time had to be devoted to hunting large game animals and correspondingly less effort was spent trapping at the very time when furs were becoming scarce. As stated by the Lac Seul trader, John Davis, in 1824:

> few large animals could be killed though many of the Indians employed their whole time in going after them consequently the trade suffered particularly in Martins, want of the first necessary of life is the source of most of the miseries of the poor Indian as well as of great injury to the trade... (HBC Arch B107/e/1).

Since the hides of the large animals were manufactured into clothing, snowshoe lacing, etcetera, the scarcity meant that Indians had to rely upon substitutes, particularly European cloth and blankets acquired in trade. But these were among the more expensive items and hence were becoming the most difficult to obtain at the very time when they were most needed. The result was that some Indians were forced to cut up their furs to make clothing.

Cases of starvation, even cannibalism, occasioned by the dearth of large animals became relatively frequent by the 1820's. While Indians could and did eat the flesh of the fur bearing animals (including the pelts themselves in times of extreme shortage), this resource alone could not sustain them. Thus, to prevent starvation, the traders encouraged Indians to snare hare and set nets for fish. Yet, because snaring and fishing were considered womens' work and beneath the dignity of male hunters, some Indians had to be pushed to the limit before they would engage in such activities. For example, after seven Crane Indians starved to death trying to live off caribou in 1826:

> they are obliged now to have recourse to rabbits and fish--the very few of them could snare one of the former animals two years ago--necessity...taught them to <u>choke</u> rabbits...--and had they been wise last year and gone to the rabbit ground so many of them would not have starved to death (HBC Arch B155/a/38).

The switch in subsistence patterns became manditory if Indians were to survive, since the few remaining moose and caribou were soon exterminated. Hare came to provide both sustenance and clothing, their pelts being woven into skin robes and blankets. Nevertheless, it was a humiliating experience for a hunter to have to resort to such apparel. Thomas Vincent remarked in 1825 that:

> their former pride and ambition to excel each other is vanished. A young man may now be seen wearing an old tattered Rabbit Skin garment that a few years ago he would have considered a degrading covering for a helpless old Woman (HBC Arch B3/e/10).

By the late 1820's, hare and fish had become the chief source of livelihood and remained so for the next six decades. In 1830, Charles McKenzie summed up the situation:

> 'tis not many years past since they have taken entirely to their present way of living. Any young man would think himself disgraced even be seen setting a Net to catch fish or a Snare for a Rabbit & when recourse was had to such means in the times of scarcity, it was left entirely to the women's province, Yet both young & old men lean their assistence now, without considering it a disgrace, so strong is the call of nature over prejudice (HBC Arch B107/a/8).

If hare proved to be numerous, Indians could spend most of their time trapping. If, however, they were scarce, as was frequently the case, Indians had to devote all their efforts to the food quest in lieu of trapping. For example, in 1850, the scarcity of hare prevented Indians from trapping even though fur animals were relatively abundant. That winter Indians suffered so much from starvation, according to George McPherson of Osnaburgh House, that "not an Indian is Making any hunt in furs... The Indians...say, they did nothing else but Angle Jackfish from day to day to Save their lives" (HBC Arch B155/a/61

Subsistence on small game also reduced considerably the mobility which had become so significant a part of the Ojibwa life style during the lush days of the early fur trade. As stated by Charles McKenzie in 1827:

> Fish and Rabbits became the Chief & only food of the natives which binds them to certain spots where these are to be found in greater abundance...(they) have destroyed all the Furred Animals within a wide range of these places. Were there large animals to enable the Indians to live & rove in the forests as formerly no doubt they (would) collect a number of small furs such as Martins, Cats, & Otters in the season when these are of most value but the miserable state of the Country not admits of this... they cannot live where these animals abound... (HBC Arch B107/e/3).

In sum, trapping had become a basic subsistence activity, since it was only through the trade in furs that the Northern Ojibwa could obtain materials necessary for survival. Actually, survival was balanced precariously between the food quest and trapping. Although both were essential, the immediacy of starvation often necessitated the search for food over furs. The food quest, which frequently interferred with trapping activities, then, influenced the type and quantity of furs traded which in turn defined the limits of an Indian's purchasing power. In terms of maximization theory, the limited variety and quantity of resources (both food and furs) required a flexible mode of production and a range of strategy alternatives

Environmental changes combined with policies designed to obligate and maintain a permanent Indian population nucleated about the post also had a decided influence on the restructuring of Ojibwa social organization. Ecological and trade conditions tended to mold the nature of social groups while setting limits on their size.

One effect was a deemphasis on unilineality as a result of the atrophy of descent group functions. Where during the late eighteenth century hunting groups were, for the main, named patrilineages (lineage segments or remnants of earlier and aboriginal clans) which functioned in the sharing of food resources and trade goods, mortuary rites (the Feast of the Dead ceremony), social control, as well as defence and predation, the

clans of the mid nineteenth century operated only to regulate marriage through the residual practice of totem group exogamy. The last Feast of the Dead ceremony uniting lineage mates which I was able to discover in the historical records occurred at Lac Seul in 1845, and it was anomalous under the altered conditions;

> Assiniboine died at a Small Lake--in the forest--but his Tribe--Eagle Tribe came in a Body and took the Corps to Lac La Glaize and Buried it among his fathers--The only instance of the Kind I have known for many years (Charles McKenzie, HBC Arch B107/a/24).

Similarly, the altered environment, the termination of deferential treatment of leaders, along with the stress on individual efforts and rights in trapping, had all but destroyed the former pattern of succession by primogeniture. For instance, McKenzie, in 1831, mentioned an Indian who

> has some ideas of taking his late father's Title & honours to which he is entitled by birth--being the Eldest son of the late old Nabagache--a chieftain of former days (HBC Arch B107/a/10).

Such attainment at this date, however, meant little more than ego gratification. The tendency for the eldest son to inherit his father's title and reside virilocally was all that remained of a once universal pattern which had insured the corporateness of the clan.

Given assymetric birth/death rates under conditions where

food and fur resources were scarce and scattered, adaptation required that lineage mates disperse themselves spatially, thus inhibiting former clan functions. The centripetal force for this dispersal involved the adjustment to the new conditions of existence. Adaptation to a degenerated environment where resources were both limited in variety and low in productivity had, during prior decades generated a flexible social structure with flexible patterns of post-nuptial residence.

Related to the atrophy of lineage group functions was the fission of extended kin groups of thirty or so persons into units only slightly, if at all, larger than the primary family. Whereas in the late eighteenth century, clan-named groups of the approximate size just mentioned had been able to maintain continuous residency regardless of the season, now subsistence restrictions had led to the formation of isolated patricentric families for seven or eight months of the year. During optimal winters, it occasionally happened that atomization did not occur. Such was the case in 1853 for members of the Pelican clan. As stated by Charles McKenzie:

> Greean and his tribe of Pelicans 10 men in number came in from the Cat Lake quarter--with their wives and children...--These brought the best haul of Furs that came in for many Years...--I gave him...a present which he is well deserving--by keeping his band together (HBC Arch B107/a/31).

When possible, then, Indians seem to have preferred to live in larger social enclaves. The above case was, however, the exception rather than the rule, fission and dispersal were more common than fusion.

The abundance and type of food hunted set definite upper limits on group size. Hare and fish which periodically fluctuated numerically and which were low in fat content could not support groups larger than families except for very brief periods during the winter season. The actual quantity of meat from such small animals when compared with large game is quite striking. For instance, Edward S. Rogers computed (1966:100) that the eighty eight moose taken by the Round Lake Indians in 1958-59 produced an estimated 35,200 pounds of meat; whereas 7,500 hare produced only 11,200 pounds! Thus, the pursuit of small scattered game necessitated small scattered hunting units. However, the pursuit of such resources, as noted, reduced mobility patterns and bound families to areas where hare and fish could be found.

Actually, two ecological factors operated to set limits on hunting group size: 1) the type and abundance of food, and 2) the overall population density of a region. Where food was scarce and the population relatively dense, the available territory exploitable to each group would be comparatively smaller than in areas less densely populated. Thus, a smaller territory could probably be most efficiently exploited by

single family units. There is support for this in the historical literature. Winter groups nearer Rainy Lake were equivalent to nuclear families, whereas those further north where the population density was half as great were sometimes twice as large. It is not surprising, then, that the more densely populated areas were the first to develop family hunting territories (Bishop 1970). They were also the first to experience the decimation of beaver and large game animals. Not unexpectedly has the classic example of Ojibwa atomism been drawn from Ruth Landes' Emo Ojibwa of the Rainy Lake region.

Social atomism can be measured not only by size diminishment, but also in terms of the manner in which productive activities are conducted and the type of reciprocity system maintained. For the Northern Ojibwa of the mid nineteenth century, production involved the acquisition of both food and furs. Neither trapping nor the snaring of hare and other small game required group participation. Both activities could most efficiently be performed by single persons or hunting partners within territorially bounded regions. Production, then, was largely individualistic. This was in marked contrast to the situation half a century earlier when large mobile bands collectively hunted big game animals as well as fur bearers. Indeed, Edward Rogers has indicated (personal communication) that the number of large game animals taken per capita among the contemporary Round Lake Indians increases with the number

of men cooperating in the hunt. That is, where four or five men hunt together, the average number of moose taken per hunter is greater than when only two men hunt together. Maximum efficiency is attained when about six or seven men are involved. Beyond this number the per capita kill declines. Relating these data to conditions in the late eighteenth century when big game hunting prevailed, it is of interest to note that groups averaged about twenty five persons or slightly more with about seven hunters per group.

During the mid nineteenth century, the exchange of resources was not entirely particularistic. Patterns of reciprocity were both a function of the type of resource involved, and the momentary conditions of existence. In regard to the former, furs were definitely the personal property of the trapper who exchanged them directly for trade goods. Such relations with the trading post involved what Sahlins (1965: 148-49) has termed "negative reciprocity" meaning an attempt to get something for nothing--or at least for as little as possible. The journals clearly indicate that the relations between Indians and the trader frequently involved haggling over price or even begging. This was true even when furs were given in the guise of gifts. For instance, the Indian, Kingfisher, bestowed a "gift" of ten prime beaver pelts to Charles McKenzie after which he made a speech to have an outpost established at Red Lake. McKenzie than gave the

Kingfisher what he thought was a generous gift. However, the Indian thought differently:

> he knew well the value of the present he made & the furs he traded--& was not a little suprized that "so great a man as me" (these were his words) did not know the Etiquette of these things better (HBC Arch B107/a/9).

Once trade goods were received by individual trappers, it would appear that they were shared to some extent with other members of the co-residential group. Survival probably would have required this. Unfortunately, there are little data on the extent of sharing. It would seem, however, that trade goods remained within the group whose trappers procurred them.

Food was the one commodity which was voluntarily shared with no explicitely defined return expected.(generalized exchange)(Sahlins 1965:147). Survival demanded that this be so. Failure to share food was considered a most heinous crime. Yet, when food shortages became critical, there were occasions when self-interest threatened even the family structure. In times of extreme duress, family members would frequently abandon each other, or resort to the ultimate subsistence recourse--cannibalism. For example, in 1831, McKenzie reported that the Indian

> Stump has Eaten his winter hunt & what is more awful & revolting to humanity, that this Indian has Killed his poor old Mother! & devoured her !!! (HBC Arch B107/a/10).

Again in 1846 when a measles epidemic struck Lac Seul, many Indians abandonned their relatives to survive as best they could. According to McKenzie:

> Aye the Indians are going off as many as can--leaving many at the point of death--Sons leaving their Fathers and Mothers--brothers leaving brothers--careless whether they ever see them again...(HBC Arch B107/a/25).

Such examples bring to mind the case of the Ik described by Colin Turnbull who exhibit similar behavioral patterns under similar conditions of deprivation.

Although starvation often forced Indians to extreme measures to ensure personal survival, deprivation could, at times be temporarily overcome by taking refuge at the trading post. For example, in 1831, McKenzie related:

> Young Tripie came to join his father...He parted... some time ago--being too many to live at one place-- we have no less than 12 of the Tripies to feed now to whom I serve out daily Rations of fish &c potatoes (HBC Arch B107/a/9).

By spring the post had been depleted of food and young Tripie, although still starving, presented McKenzie with the flesh of a beaver. McKenzie added that "he did not forget that he owed his life to this house the greatest part of the winter". The journals indicate that food was often voluntarily shared with

traders as well as kinsmen, if available, although traders had generally adopted a policy of paying for it. In turn, Indians expected to be fed in times of scarcity provided that they had the strength to reach the post to get food donations.

In the past, anthropologists have discussed social atomism in terms of individualistic patterns of proprietorship and self-sufficiency. However, when viewed in terms of patterns of production and reciprocity, it may, in the future, be possible to measure the degree to which atomism is present, and thereby acquire more precise conceptual refinement. Actually, it would seem that the extent of atomism at a given time will fluctuate in accordance with the conditions for existence. As Laughlin (1974) has argued, reciprocity (one measure of atomism) "exhibits periodic centrifugal/centripetal fluctuation of the inner bounds of negative reciprocity". He calls this the "accordian effect" of negative reciprocity "which forms a constantly fluctuating and systematic adaptation of a society to the environmental conditions". In sum, atomism may not exist in perpetuity:

> Rather, socioeconomic relations change in a systematic and predictable fashion in order that the society can adapt to shifting ecological and external social conditions (Laughlin 1974:).

Adaptation, then, involves both internal and external alterations: internal when pertaining to shifts in the nature..

of social relations; external when concerned with variations in exploitive activities.

One biological consequence of the shift from large game hunting to the intensification of efforts on small non-migratory fauna was an evident population growth during the nineteenth century. In the face of recurring episodes of extreme deprivation, this, at first, would seem to be contradictory. Nevertheless, demographic materials from all trading post records throughout the Ojibwa area attest to it. For example, the Lac Seul Indian population of 1838, according to Charles McKenzie: "is greatly on the increase since 1821" (HBC Arch B107/a/16). Between 1829 and 1838, it had increased internally from 219 persons to 339 persons. Similarly, the population dependent upon the Osnaburgh House post grew from about 200 persons in 1825 to 474 persons in 1881 (Bishop 1974:157).

It is an accepted principle that "equilibrium systems regulate population density below the carrying capacity of the environment" (Binford 1968:328). Equilibrium, it should be stressed, does not refer to a constancy in the numbers of persons, but rather to a balanced relationship with the exploited resources. Population growth can be caused by a number of factors. Unfortunately, the studies which generated those explanatory factors have, for the most part, been derived from horticultural societies and there is a dearth of data on this topic for foraging peoples. In the case of the Northern

Ojibwa, however, demographic changes seem to be primarly due to an increase in the labor input, and a social reorganization for subsistence ends (cf. Dumond 1972b:325-26; Lee 1972:338).

In regard to the labor input, there can be no question that more effort had to be put into survival activities as large game diminished in numbers and eventually disappeared. As stated by Charles McKenzie in 1831:

> The Indian life is become a most miserable life... the procuring of the means of existence keeps the very best Indian in constant employment every day of the year & not to live as Indians were want to live 20 years ago but merely to exist (HBC Arch B107/e/4).

However, although an individual male had a difficult time getting a minimal amount of food, both young and old, men and women were now employed in the food quest, rather than simply the adult hunters and women who set nets and snares. Therefore, although the labor input was necessarily higher in terms of the productive results, it generally proved sufficient to maintain the population, and because less territory needed to be dominated by family units, allowed more family units to exist and, thus, the overall population to increase despite a rather dull and arduous life style.

The social reorganization for subsistence requirements involving small game and fur bearers required the spatial separation of family units for much of the year. Trapping and hare snaring, as previously stated, required less mobility and

hence, less territory than big game hunting. Where livelihood on moose and caribou required that hunting groups moved frequently and over extensive regions, the exploitation of small fauna meant that a greater number of smaller units could survive provided that they were scattered evenly over the country. Thus, for illustration, a territory of 3,000 square miles might support a group of thirty persons, ten of whom are, as big game hunters, the food getters. In contrast, that same 3,000 square miles will be capable of supporting, say, three extended family units of fifteen persons each (totalling forty five people) if subsistence is on small non-migratory fauna such as hare and fish, and perhaps as many as thirty men, women and children are foraging. In the case of the Northern Ojibwa, fission and dispersion are exactly what occurred.

The restructuring of social relations to accomodate to environmental shifts involved a balance among the satisfaction of material requirements, affective social relationships, and the expenditure of efforts. This balance was achieved by altering modes of production and reciprocity to minimize relative deprivation (cf. Dumond 1972:288-89). Putting it another way, Northern Ojibwa social structure was more expendible than human lives. When viewed from this perspective, the Northern Ojibwa of the mid nineteenth century were not poorly adapted. Indeed, they demonstrated an ability to maximize survival potential by sociocultural readjustment in a poor environment. Thus,

despite occurences of starvation, exposure, disease, and cannibalism, all of which operated to retard the rate of growth, the fact of cultural viability is confirmed by an evident population growth.

SUMMARY AND CONCLUSIONS

After the fur trade first reached the Ojibwa during the early seventeenth century, it rapidly led to alterations in socioeconomic arrangements. In certain respects the situation parallels that which occurred among Northwest Coast tribes where the influx of quantities of trade goods led to changes in the structure and function of the potlatch. Both in the latter case and for the Ojibwa, ceremonials became a means of status agrandization for chiefs and their bands, rather than merely for simple validation, alliance perpetuation and redistribution. The practical benefits of the new trade materials to be sure were important, but this factor alone cannot explain the events which followed their introduction involving the expansion of the Ojibwa into new econiches and the competitive relationships among groups and with outsiders. So important had these goods become that intertribal hostilities ensued and Indians engaged in an almost unrestricted slaughter of animals to get them. The competitive nature of the fur trade itself fostered dishonesty (at least from the traders' point of view). Indeed, it may be postulated that the art of playing off competing traders against each other to acquire extra debts was itself a channel to

status enhancement. At the same time, these very trade goods had by the late nighteenth century totally replaced many items of aboriginal manufacture. Yet it was not the trade goods alone that led to the dependence of Indians, since prior to 1821, greater quantities were received than for severl decades after. It was only after big animals and beaver became sepleted, and trade rivalry ended that a state of total dependence was reached. As beaver declined, Indians found it increasingly difficult to procure sufficient quantities to obtain trade supplies. Simultaneously, however, as big game grew scarce, the survival value of fur bearers increased. Further, the decline of large game also meant that more time had to be devoted to hunting them until, finally, the law of diminishing returns in regard to the amount of effort spent in searching for them exceeded the limits of survival. At this juncture, survival requirements forced the Ojibwa to adapt to a hare and fish subsistence. However, neither these resources nor the requirements of trapping allowed for the maintenance of large cohesive hunting groups characteristic of former years. Hence, the relationship with an altered environment and external conditions of trade tended to mold the nature of social groups while setting limits on their size and the extent of territory which they could effectively exploit. It also destroyed the functional basis of unilineal society. The Ojibwa case, then, is additional support for Laughlin's hypothesis (1973:212)

that any society with a normative unilineal-residence rule faced with a deteriorating economic situation where goods become limited in type and quantity "will develop a tendency to become increasingly more randomized in relation to directionality of descent". In other words, the Ojibwa social structure underwent adaptive shifts in response to fluctuations in the nature and availability of resources. Both the modes of production involving trapping and foraging along with exchange networks shifted accordingly. Production, because of the nature of the resources exploited, became highly individualistic; while exchanges within the Ojibwa system became largely limited to foods shared among close kin or relatives. In these respects Ojibwa society can be called atomistic. Basic exchanges from the perspective of survival also involved these between families and the trading post. Rephrasing this in terms of maximization theory, as Martin has recently done in her discussion of "exchange-dependent foragers": "The act of exchange...became a resource in itself, to be effectively exploited for the acquisition of subsistence goods" (Martin 1974:26).

In sum, the Ojibwa had readjusted their adaptive strategies to conform with survival requirements. Although at first several changes required the advice of traders since they went against traditional norms, the ultimate decision-making lay with the Ojibwa. In most cases, they chose survival under deprived conditions over extinction. There can be no doubt that

deprivation and stress, at times, were extreme. Yet the Ojibwa, faced with the need to adapt to a situation where, now, the reward was only survival, showed flexibility in altering subsistence style, organizational networks, and cultural motifs so as to not merely exist, but to actually expand. In view of the ethnocentric and somewhat derogatory psychological portraits attributed to the Ojibwa (cf. Hickerson 1967:320-24), it could be restated that they weathered their nineteenth century experiences extremely well emerging somewhat scarred but alive. I am convinced that few others faced with such hardships could have done better.

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NOTES

I wish to thank the Governor and Committee of the Hudson's Bay Company for permission to view and cite from their archival materials. The research for this paper was sponsored by grants from the National Museum of Man and from the State University of New York.

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